



## Complete Summary

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### TITLE

Heart failure in adults: percentage of adult patients diagnosed with heart failure (HF) who have had an evaluation of left ventricular function (LVF) at the time of diagnosis or within six months of hospitalization.

### SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 Jun. 111 p. [198 references]

## Measure Domain

### PRIMARY MEASURE DOMAIN

#### Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of adult patients diagnosed with heart failure (HF) who have had an evaluation of left ventricular function (LVF) at the time of diagnosis or within six months of hospitalization.

### RATIONALE

The priority aim addressed by this measure is to improve the treatment of patients with heart failure (HF) by assuring that patients have the etiology and/or precipitating factors of HF identified.

### PRIMARY CLINICAL COMPONENT

Heart failure (HF); left ventricular function (LVF); echocardiogram; radionuclide ventriculogram

#### DENOMINATOR DESCRIPTION

Total number of patients with heart failure (HF) whose medical records are reviewed (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

#### NUMERATOR DESCRIPTION

Number of patients with heart failure (HF) who received assessment of left ventricular function (LVF) evaluation by echocardiogram or radionuclide ventriculogram at the time of diagnosis or within six months of hospitalization

#### Evidence Supporting the Measure

##### EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

##### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Heart failure in adults.](#)

#### Evidence Supporting Need for the Measure

##### NEED FOR THE MEASURE

Unspecified

#### State of Use of the Measure

##### STATE OF USE

Current routine use

##### CURRENT USE

Internal quality improvement

#### Application of Measure in its Current Use

##### CARE SETTING

Physician Group Practices/Clinics

## PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

## LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

## TARGET POPULATION AGE

Age greater than or equal to 18 years

## TARGET POPULATION GENDER

Either male or female

## STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

There are an estimated 4.9 million individuals currently diagnosed with heart failure (HF), 550,000 new cases diagnosed annually, 1 million people hospitalized annually (including readmission rates of 30 to 60%), and over 260,000 annual deaths from HF. From 1979 to 2000, HF death rates have increased 148% and hospital discharges have increased 165%.

### EVIDENCE FOR INCIDENCE/PREVALENCE

Institute for Clinical Systems Improvement (ICSI). Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 Jun. 111 p. [198 references]

### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

### BURDEN OF ILLNESS

See "Incidence/Prevalence" field.

### UTILIZATION

See "Incidence/Prevalence" field.

### COSTS

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

### IOM CARE NEED

Living with Illness

### IOM DOMAIN

Effectiveness

## Data Collection for the Measure

### CASE FINDING

Users of care only

### DESCRIPTION OF CASE FINDING

Adult patients 18 years of age or older diagnosed with heart failure (HF)

From the medical group's claims/encounter (billing) data or from appointment lists (if billing data are inaccessible), identify all patients age 18 and older with one or more visits for HF in the quarter. From this pool of patients unique within that quarter, randomly select 20 patients for each month.

Patients should be unique within each quarter but can repeat from one quarter to the next.

For groups without access to billing information, a process similar to the following may be helpful:

1. Determine the beginning and ending dates of the quarter, a three month period.
2. At the end of the first quarter, review Month 1's appointment lists for people who had one or more visits for HF. Suppose there were 25 people in Month 1. Randomly select 20 people and review their records, using the attached form (refer to the original measure documentation).
3. At the end of the second month of the quarter, review Month 2's appointment lists for people who had visits for HF. Suppose there were 30 people in Month 2. Make a list of those 30 names, deleting any patients who had been reviewed in Month 1. Suppose three people seen in Month 2 had been reviewed in Month 1. These three people are deleted from the 30, leaving 27 potential people to review. Randomly select 20 people and review their records, using the attached form (refer to the original measure documentation).
4. At the end of the third month of the quarter, review Month 3's appointment lists for people who had visits for HF. Suppose there were 28 people in Month 3. Make a list of those 28 names, deleting any patients who had been

- reviewed in Month 1 or Month 2. Suppose five people seen in Month 3 had been reviewed in Month 1 or Month 2. These five people are deleted from the 28, leaving 23 potential people to review. Randomly select 20 people and review their records, using the attached form (refer to the original measure documentation).
5. At the start of the next quarter, start the process over with Step 2. Do not worry about including people who had been reviewed in the previous quarter.

Ordinarily, the sample would be drawn quarterly; data would be abstracted monthly.

#### DENOMINATOR SAMPLING FRAME

Patients associated with provider

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Total number of patients with heart failure (HF) whose medical records are reviewed\*

\*Patients age 18 and older with HF as defined by: one or more visits with any (primary or secondary) diagnosis of HF (International Classification of Diseases, Ninth Revision [ICD-9] code 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.2, 428.3, 428.4, or 428.9) in the last quarter.

##### Exclusions

Unspecified

#### DENOMINATOR (INDEX) EVENT

Clinical Condition

Encounter

#### DENOMINATOR TIME WINDOW

Time window is a fixed period of time

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Number of patients with heart failure (HF) who received assessment of left ventricular function (LVF) evaluation by echocardiogram or radionuclide ventriculogram at the time of diagnosis or within six months of hospitalization

##### Exclusions

Unspecified

#### NUMERATOR TIME WINDOW

Fixed time period

## DATA SOURCE

Administrative data  
Medical record

## LEVEL OF DETERMINATION OF QUALITY

Individual Case

## PRE-EXISTING INSTRUMENT USED

Unspecified

## Computation of the Measure

## SCORING

Rate

## INTERPRETATION OF SCORE

Better quality is associated with a higher score

## ALLOWANCE FOR PATIENT FACTORS

Unspecified

## STANDARD OF COMPARISON

Internal time comparison

## Evaluation of Measure Properties

## EXTENT OF MEASURE TESTING

Unspecified

## Identifying Information

## ORIGINAL TITLE

Percentage of adult patients with HF who have had an evaluation of left ventricular function at the time of diagnosis or within six months of hospitalization.

## MEASURE COLLECTION

[Heart Failure in Adults Measures](#)

## DEVELOPER

Institute for Clinical Systems Improvement

## ADAPTATION

Measure was not adapted from another source.

## RELEASE DATE

2003 Jul

## REVISION DATE

2005 Jun

## MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2004 Feb. 83 p.

## SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Heart failure in adults. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2005 Jun. 111 p. [198 references]

## MEASURE AVAILABILITY

The individual measure, "Percentage of adult patients with HF who have had an evaluation of left ventricular function at the time of diagnosis or within six months of hospitalization," is published in "Health Care Guideline: Heart Failure in Adults." This document is available from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#).

For more information, contact ICSI at, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; phone: 952-814-7060; fax: 952-858-9675; Web site: [www.icsi.org](http://www.icsi.org); e-mail: [icsi.info@icsi.org](mailto:icsi.info@icsi.org).

## NQMC STATUS

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